Work Order ID 99939

4 April-16-13 12:36:33 PM

99939

Item 1D: 646.4001 Accept *N900040100* Setup Start Revision ID: Item Name: AS350 Cable Cutter **Start Date:** 4/16/13 Start Qty: 1.00 **Cust Item ID:** Required Date: 4/30/13 Req'd Qty: 1.00 **Customer:** Reference: Run **Approvals: Process Plan:** MLJ Date: 13-04-16 Tooling: Date: QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Description Run Hours Code Qty Qty-Number Stamp Draw Nbr **Revision Nbr** 646.4000 Α 100 0.00 DOCUMENT CONTROL *100* DC 0.00 Memo Document Control Photocopy bluefile & type labels per PPP 646.4001 110 Pick Kit 0.00 *110* Packaging 0.00 Memo -Packaging 120 QC4-100% Inspect kits for completeness 0.00 *120* QC 0.00 Memo Quality Control

												DQA:	Da	te:	•
NCR:	Yes	/ No				WORK ORDER NON-C	WORK ORDER NON-CONFORMANCE / UPDATE								. .
												QA Closed:	Da	te:	•
144 - 1 - 0 - 1						DISPOSITION				AGAINST D	EΙ	PARTMENT	PROCESS		,
Work Ord	er: .					Rework	1		Skid-tube	Crosstube	٦]	Water Jet		Engineering
Part f	No.					Scrap	1	l	Machining	Small Fab	_	Pro	d. Eng. Coor.	\vdash	Quality
raiti	1 0.					Use-as-is	1 1		noforming	Finishing	ᅦ		e/Packaging	-	Other
NCR I	No.					Work Order Update	1		Large Fab	Composite		•	Supplier	-	
	•		107.77									,			
Root		•			Descri	ption of work order update		nitial		tion		Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	_	Date	Verificatio	<u>n</u>	QC Inspector
Doc/Data	Ш]												
Equip/Tooling			Į	,									,		
Operator	Ш														
Material	Ш														
Setup	Ш					V									
Other						`									
Process															
Supplier		·]			
Training															
Unapproved			<u> </u>	<u> </u>	<u> </u>		<u> </u>								
							AUL	T CATE	GORY						
Landi						General		1:-		Г		Ovalized		_	Pressure/Forced
	-	Bending			a /s	Bend BOAA/Bassta	-	Grain				Over/Under	talaransa	\vdash	Temperature/Cure
		Centre No	ot Concei	ntric to	0/5	BOM/Route	-	Hardwa		-		-		-	Weld
	\vdash	Cracks	.		-	Broken/Damaged	-	4 '	on Incomplete	Madaar		Part Incorre		-	Wrong Stock Pulled
	\vdash	Crushed/	Crimped.		<u> </u>	Burrs	\vdash	1	ions Incomplete/	Unclear		Part Lost/M Part Moved	122111B		I MI OUR Prock Lause
		Cuffs			-	Contamination	\vdash	Mainte		-		Part Moved Positioned V	Vrong		
	\vdash	Heat Trea		- 1		Countersink	-	Mislabe		-		-1	-		Other
		Inspection	n Strip in	Tube	1	Cut Too Short		Misread	1	L		Power Loss/	Surge	$ldsymbol{ldsymbol{ldsymbol{ldsymbol{eta}}}$	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence
Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

April-16-13 12:36:33 PM

Page 2

Item ID: 646.4001 Accept *N900040100* Setup Start **Revision ID:** Item Name: AS350 Cable Cutter **Start Date:** Start Qty: 1.00 4/16/13 *1* **Cust Item ID:** Required Date: 4/30/13 **Req'd Qty:** 1.00 **Customer:** Reference: Run Approvals: **Process Plan:** Date: Tooling: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool # Plan Tool ID Accept Reject Reject Insp. Work Center ID Description **Run Hours** Code Qty Number Stamp Qty 130 0.00 *130* Packaging Packaging 0.00 Memo Packaging Identify and pack for shipping as per PPP 646.4001 Location:_ 140 QC21- Final Inspection - Work Order Release 0.00 QC Memo 0.00 **Quality Control**

NCR:	Yes	/	No
IVCIV.	IC3	,	140

										DQA:	Date:	•		
NCR: Y	es / No				WORK ORDER NON	I-CO	VFORM	MANCE / UI	PDATE		5 .	•		
						<u>.</u>				QA Closed:	Date:	•		
Work Orde	· ·				DISPOSITION				AGAINST [DEPARTMENT/PROCESS				
WOIK Of GE	:1 .				Rework			Skid-tube	Crosstube	7	Water Jet	Engineering		
Part N	lo.				Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality		
					Use-as-is		Therm	noforming	Finishing	Rec/Sto	re/Packaging	Other		
NCR N	lo				Work Order Update	[Large Fab	Composite		Supplier			
		I	1 1	D	intion of work and an undate		Initial Action			Sign &	Γ			
Root Cause	Date	Step	Qty		iption of work order update or Non-conformance	ł	niciai iief Eng		cription	Date	Verification	QC Inspector		
Doc/Data	Date	эсер	L Cty		or Non comormance		ici ziig		<u> </u>					
quip/Tooling														
perator														
//aterial							:							
etup			1			İ								
Other						į		·						
Process	_	,			•									
upplier raining												:		
Jnapproved														
		·				FAUL	T CATE	GORY						
Landir	ng Gear				General		7		-		_	.		
	Bending				Bend	_	Grain		ļ	Ovalized		Pressure/Forced		
ļ	Centre N	ot Conce	ntric to (D/S -	BOM/Route	-	Hardwa		}	Over/Under	<u> </u>	Temperature/Cure Weld		
	Crushod	(Crimana)		-	Broken/Damaged	-	4	ion Incomplete iions Incomplete	/Unclear	Part Incorre	 	Wrong Stock Pulled		
	Crushed/Crimped. Burrs Cuffs Contamination						Mainte	•	., Officieal	Part Moved		Terroria prock, and		
	Heat Treat Countersink						Mislabe			Positioned '				
	Inspection Strip in Tube Cut Too Short						Misread Power Loss/Surge Other					Other		
	Ripples in Bend Drill Holes						Offset							
	Torque Waves in Extrusion Drawing						Out of Calibration							
	Turning Sequence Finish						Out of 9	Sequence			· · · · · · · · · · · · · · · · · · ·			
	Wave/Twist in Tube Folio							Dimensions						

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

"April-16-13 12:36:3" PM

Work Order ID: 99939

99939

Parent Item:

646.4001

646 4001

Parent Item Name: AS350 Cable Cutter

Start Date: 4/16/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP REV:A 12.10.23 NEW ISSUE DD VERE-ILM

	1 10.5 7.74 12.10.	.23 NEW 1330E	טט	VERFULN									
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Ki	t Total Qty	Qty Issued	Date Issued	Status
646.3301 **GAG 33301 Upper Cutter Assembly	*	Manufactured	No				Each	25.0000	**	(130kg	.7	C	
	5m3			ST545	125083 93247	Loc (7 7 18	Loc Code	-		- -		•
* <mark>各46 3001</mark> Lower Cutter Assembly	*	Manufactured	No		73241	!	18 Each	17.0000	**	901	823	l	

646.2910

Location Loc Oty Loc Code ST139A 125083 ST537 93425 Manufactured No Each 6.0000

646 2910

Location Loc Oty Loc Code ST139A

125083

											DQA:	Date	:			
NCR:	Yes	/ No				WORK ORDER NON-CONFORMANCE / UPDATE										
											QA Closed:	Date	: .			
Work Ord	or:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS				
WOIK OIG	E1.					Rework	1		Skid-tube	Crosstube	7	Water Jet	Engineering			
Part I	No.					Scrap	1		Machining	Small Fab		d. Eng. Coor.	Quality			
						Use-as-is		Therm	noforming	Finishing	Rec/Sto	re/Packaging	Other			
NCR I	No.	-				Work Order Update			Large Fab	Composite		Supplier				
Root					Descri	ption of work order update		Initial	Act	ion	Sign &					
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Descr	ription	Date	Verification	QC Inspector			
Doc/Data																
Equip/Tooling	Ш]									•			
Operator	Ш															
Material																
Setup																
Other																
Process									ı							
Supplier																
Training																
Unapproved																
						F	AUI	LT CATE	GORY							
Landi	ng (Sear				General		7		_	7	_	_			
		Bending				Bend		Grain		<u> </u>	Ovalized	<u> </u>	Pressure/Forced			
		Centre N	ot Conce	ntric to	o/s	BOM/Route	L	Hardwa	re	-	Over/Unde	-	Temperature/Cure			
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	 	Weld			
		Crushed/	Crimped			Burrs	_	4	ions Incomplete/l	Jnclear	Part Lost/M	_	Wrong Stock Pulled			
,		Cuffs	- `			Contamination		Mainte	nance		Part Moved					
		Heat Trea	at			Countersink		Mislabe	led		Positioned					
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	t		Power Loss	/Surge	Other			
		Ripples ir	Bend			Drill Holes		Offset								

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

*April-16-13 12:36:38 PM

Work Order ID: 99939

646.4001

99939

Parent Item Name: AS350 Cable Cutter

Parent Item:

646 4001

Location

ST139A

Start Date: 4/16/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

646.3810

646.3510

Manufactured

Manufactured

Each 8.0000

Loc Code

Each 3.0000

646.3511

Manufactured

Location ST139B

Location

Location

125083

93300

Loc Qty

Loc Qty

Loc Qty

Loc Qty

Each

2.0000

Loc Code

Loc Code

646.3512

Manufactured

ST 125023

2 Each

1.0000

646.3513

Manufactured

ST139A 125083

Loc Code

Loc Code

Each 24.0000

Location Loc Qty ST139A 24

125083

24

1

April-16-13 12:36:38 PM

Shop Packet Print

Page 2

DQA:

Date:

NCR: Y														
	,							-		QA Closed:	Date:			
Work Orde	r·		·		DISPOSITION				AGAINST DE	DEPARTMENT/PROCESS				
Work Orac		···			Rework	7		Skid-tube	Crosstube	7	Water Jet	Engineering		
Part N	0.				Scrap	1	Machining Small Fab			Pro	d. Eng. Coor.	Quality		
					Use-as-is] Th	Thermoforming Finishing			Rec/Sto	e/Packaging	Other		
NCR N	0	<u>-</u> -			Work Order Update]		Large Fab	Composite	_	Supplier			
Root				Descri	ption of work order update	Initia	Initial Action			Sign &				
Cause	Date	Step	Qty		or Non-conformance	Chief I	Eng	Desc	ription	Date	Verification	QC Inspector		
Doc/Data														
quip/Tooling														
Operator														
Material														
Setup			1 1											
Other														
Process														
Supplier	_													
Training								:						
Unapproved		<u> </u>				<u> </u>				<u> </u>				
						AULT C	ATE	GORY		<u> </u>				
Landin	g Gear				General					٦, ,,	Γ-	Pressure/Forced		
Ļ	Bending			, -	Bend	Gra			-	Ovalized		Temperature/Cure		
į	Centre No	ot Conce	ntric to C	D/S _	BOM/Route	\vdash	rdwa		<u> </u>	Over/Under	—	Weld		
-	Cracks			<u> </u>	Broken/Damaged			on Incomplete	,, , <u> </u>	Part Incorre	<u></u>	┥		
-	Crushed/	Crimped.		. —	Burrs	—		ions Incomplete/	/Unclear	Part Lost/M	Issing	Wrong Stock Pulled		
_	Cuffs			<u> </u>	Contamination	├ ─┤		nance	<u></u>	Part Moved	44			
1	Heat Trea			<u> </u>	Countersink	\vdash	slabe			Positioned \		7045-		
-	Inspectio		Tube	\vdash	Cut Too Short	—	sreac	i	L	Power Loss,	Surge	Other		
	Ripples in		*	<u> </u>	Drill Holes	Off					<u>.</u>	· · · · · · · · · · · · · · · · · · ·		
	Torque W			` _	Drawing	\vdash		Calibration						
. [Turning S	•		<u> </u>	Finish			Sequence						
	Wave/Tw	ist in Tul	oe e		Folio	Out	tside	Dimensions						

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

~ April-16-13 | 12:36:38 PM

Work Order ID: 99939

Parent Item:

646.4001

Parent Item Name: AS350 Cable Cutter

99939 *646 4001*

Start Date: 4/16/13

Required Date: 4/30/13

Required Qty: 1.00

Start Qty: 1.00

8.710.000

Each

NAS1149F0332P

Purchased

MS21042L3

Purchased

Location	Loc Oty	Loc Code
GA	182	
122063	182	
ST294	158	
122063	158	
ST295	, 3	
123352	3	
st510	8367	
123900	8367	
	Each	4,780.000

Location	Loc Qty	Loc Code
FP001	3	
122141	3	
GA	. 119	
122452	119	
ST314	268	
117885	32	
119017	55	
119075	138	
123265	43	
ST506	4390	
123900	974	
124291	3416	

	,
1. 20/	

												DQA:	Da	te:	•
NCR:	Yes	/ No				WORK ORDER NON-O	NFORN					ŕ			
			,	-,								QA Closed:	Da	te:	•
Work Orde	or:					DISPOSITION				AGAINST	DE	PARTMENT	PROCESS		
WOIK Old	-					Rework	1		Skid-tube	Crosstube			Water Jet		Engineering
Part i	No.					Scrap			Machining	Small Fab		Pro	d. Eng. Coor.	-	Quality
	-				····	Use-as-is	1		noforming	Finishing		Rec/Stor	e/Packaging		Other
NCR i	No.					Work Order Update]		Large Fab	Composite			Supplier		
								· ·				 			·
Root	l					ption of work order update		nitial		tion		Sign &	., .,		001
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription		Date	Verificatio	n	QC Inspector
Doc/Data	Ш														
Equip/Tooling	Ш												-		
Operator	Ш														
Material	Ш														
Setup	Щ						ł								
Other	Щ			,											
Process	Ш		i :	·									,		
Supplier	Ш														
Training	Ш														
Unapproved												<u> </u>	<u> </u>		
						·	AUL	T CATE	GORY						
Landi					_	General	_	1			_	1			1 ₀ / ₅ /
	$oldsymbol{oldsymbol{ ext{H}}}$	Bending				Bend	-	Grain			_	Ovalized		_	Pressure/Forced
	$\vdash \vdash$	Centre No	ot Concer	ntric to	o/s	BOM/Route	-	Hardwa			_	Over/Under		-	Temperature/Cure
	Н	Cracks				Broken/Damaged	_	1 '	on Incomplete		<u> </u>	Part Incorre		-	Weld
	${f -}$	Crushed/	Crimped.			Burrs	<u></u>	4	ions Incomplete/	Unclear		Part Lost/Mi	issing		Wrong Stock Pulled
	Ш	Cuffs				Contamination		Mainte			L	Part Moved			
	Ш	Heat Trea	t			Countersink		Mislabe	led		L	Positioned V	-	_	1
		Inspection	n Strip in	Tube		Cut Too Short	1	Misread				Power Loss/	Surge		Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

~April-16-13 | 12:36:38 PM

Work Order ID: 99939

646.4001

99939 *646 4001*

Parent Item Name: AS350 Cable Cutter

Parent Item:

646.3110

646.3710

646.3210

646/3713

Gusset

Manufactured

Manufactured

Manufactured

Manufactured

Location

ST139A 125083

Location ST425

97175

Location ST538

Location

ST139A

93488

93208

5 Each

Loc Qty

Loc Qty

7

Start Date: 4/16/13

Start Qty: 1.00

6.0000

Loc Code

22.0000

Loc Code

5.0000

Loc Code

7.0000

Loc Code

Each

Loc Qty

Loc Qty

22

22

Each

6

Each

Required Date: 4/30/13 Required Qty: 1.00

									DQA:	Date:	•
NCR: Yes	/ No			WORK ORDER NON-	CON	NFORM	/ANCE / UP		QA Closed:	Date:	
Work Order:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
				Rework	7		Skid-tube	Crosstube		Water Jet	Engineering
Part No.				Scrap	7 	1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
				Use-as-is	7	Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR No.				Work Order Update]		Large Fab	Composite		Supplier	
Root	ļ			Description of work order update	1	Initial	Ac	ction	Sign &		
Cause	Date	Step	Qty	or Non-conformance	Ch	nief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling										·	
Operator]									1	
Material				ų.							,

FAULT CATEGORY Landing Gear General Pressure/Forced Bend Grain Ovalized Bending BOM/Route Temperature/Cure Over/Under tolerance Centre Not Concentric to O/S Hardware Weld Broken/Damaged Inspection Incomplete Part Incorrect Cracks Wrong Stock Pulled Instructions Incomplete/Unclear Part Lost/Missing Crushed/Crimped. Burrs Contamination Maintenance Part Moved Cuffs Positioned Wrong Heat Treat Countersink Mislabeled Power Loss/Surge Other Inspection Strip in Tube Cut Too Short Misread Drill Holes Ripples in Bend Offset Out of Calibration Torque Waves in Extrusion Drawing Turning Sequence Out of Sequence Finish Folio **Outside Dimensions**

Wave/Twist in Tube

Setup Other Process Supplier Training Unapproved

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

* April-16-13 | 12:36:38 PM

Work Order ID: 99939 *99939* Parent Item: 646,4001 *646 4001* Parent Item Name: AS350 Cable Cutter **Start Date:** 4/16/13 Required Date: 4/30/13 Start Qty: 1.00 Required Oty: 1.00 MS24694-S51 Purchased No Each 108.0000 Location Loc Oty Loc Code ST303 108 116805 123741 107 AN3-13A Purchased No Each 95.0000 Location Loc Qty Loc Code ST351 45 104746 15 120910 30 ST512 50 123759 50 AN3-4A Purchased No Each 453.0000 ** Location Loc Oty Loc Code ST350 318 120308 80 122814 38 124858 200 ST512 135 120770 134 123900

NCR:	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE													
												QA Closed:	Date	e: .
Work Ord	or.					DISPOSITION				AGAINS	T DE	PARTMENT		
						Rework]	i e	Skid-tube Machining	Crosstub Small Fa	\vdash	Pro	Water Jet	Engineering Quality
Part I	NO.					Scrap Use-as-is	-		noforming	Finishin	-		e/Packaging	Other
NCR I	No.					Work Order Update]		Large Fab	Composit	~		Supplier	
Root					Descri	ption of work order update		Initial	Act	ion	•	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desci	ription		Date	Verification	QC inspector
Doc/Data												·		
Equip/Tooling														
Operator														
Material														
Setup														
Other														
Process	L													
Supplier														
Training														
Unapproved							<u> </u>							
						F	AUL	T CATE	GORY					·
Landi	ng C	Sear				General		7				1	г	
		Bending				Bend		Grain			<u> </u>	Ovalized		Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	are			Over/Under		Temperature/Cure
i 		Cracks			L	Broken/Damaged		Inspect	ion Incomplete			Part Incorred	ct	Weld
		Crushed/	Crimped.			Burrs		Instruct	tions Incomplete/I	Unclear		Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	enance			Part Moved		
		Heat Trea	it			Countersink		Mislabe	eled			Positioned V	Vrong	
		Inspection	n Strip in	Tube		Cut Too Short		Misread	d			Power Loss/	Surge	Other
	П	Ripples in	Bend			Drill Holes		Offset						

Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

*April-16-13 12:36:38 PM

Work Order ID: 99939 *99939* Parent Item: 646.4001 *646 4001* Parent Item Name: AS350 Cable Cutter **Start Date:** 4/16/13 Required Date: 4/30/13 Start Qty: 1.00 Required Qty: 1.00 CR3213-5-3 Purchased No Each 300.0000 **Location** Loc Qty Loc Code ST329 300 123785 300 MS20470AD5-5.5 Purchased No Each 741.0000 Location Loc Oty Loc Code ST336 741 123425 741 646.3711 Manufactured Each 2.0000 Location Loc Oty Loc Code ST139B 2 125083 2 646.3712 Manufactured Each 2.0000 Location Loc Qty Loc Code ST139B 125083 2

												DQA:	D	ate:	·
NCR:	Yes /	No				WORK ORDER NON-O	100	VFORM	MANCE / UP	DATE		•		•	•
	•										_(QA Closed:	D	ate:	·
Marile Ond						DISPOSITION				AGAINST D	EΡ	ARTMENT/	PROCESS		
Work Ord	er:					Rework	1		Skid-tube	Crosstube	٦		Water Je	+[]	Engineering
Dart I	No					Scrap	1 1		Machining	Small Fab	\dashv	Pro	d. Eng. Coor	\vdash	Quality
Part I	NO					Use-as-is	1		noforming	Finishing	\dashv		e/Packagin		Other
NCR I	Nο					Work Order Update	1 1		Large Fab	Composite	\dashv	1100,000	Supplie		H
]	נ			,				<u> </u>	•
Root					Descri	iption of work order update		Initial	Ac	tion	T	Sign &			-
Cause	[Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	\perp	Date	Verificati	on	QC Inspector
Doc/Data															
Equip/Tooling															
Operator											İ				
Material				:											•
Setup	Ш														
Other	Ш														
Process	Ш				İ										
Supplier	Ш														
Training	Ш						ļ				İ				·
Unapproved	<u>l L</u>						<u></u>								
							AUL	T CATE	GORY		—				
Landi	ng Gea					General	_	10		_	\neg	Ovalized		Γ	Pressure/Forced
	\vdash	nding			_	Bend		Grain		-			+= =====		·
	Centre Not Concentric to O/S Cracks					BOM/Route	+-	Hardwa				Over/Under Part Incorred		H	Temperature/Cure Weld
	 -		S		<u> </u>	Broken/Damaged	\vdash	1	ion Incomplete	'Unclose	—1	Part Incorred Part Lost/Mi		\vdash	Wrong Stock Pulled
	${f oxed{f oxed{f eta}}}$		Crimped.			Burrs	-	Mainte	ions Incomplete/	Uniclear	-1	Part Lost/ivii Part Moved	SOUIR		Wilding Stock Fulled
	Cut	ΠS			ĺ	Contamination	1	liviailite	Hance		- 1'	raitivioved			

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Positioned Wrong

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

* April-16-13 12:36:38 PM

Work Order 1D: 299939

Parent Item:

646,4001

Parent Item Name: AS350 Cable Cutter

99939 *646 4001*

Start Date: 4/16/13

Start Qty: 1.00

**

Required Date: 4/30/13

Required Qty: 1.00

646.3811

AN3-6A

Purchased

Manufactured

Purchased

No

No

Loc Qty **Location** ST139A 29 125083 9 93224 20 Each

438.0000

29.0000

Loc Code

Loc Code

Each

124296

Location Loc Qty ST350 300 124296 300 ST351 61 117441 34 121166 13 122993 10 123831 ST512 77 122814 77

92.0000

Each

Location Loc Qty Loc Code ST303 92 124296 92

April-16-13 12:36:38 PM

Shop Packet Print

Page 7

NCR:	Yes	/ No				WORK ORDER NON-C	100	NFORM	MANCE / UPI	DATE	QA Closed:	Date:	•
				:	5000	DISPOSITION				AGAINST DE			
Work Orde	er: _						,				. <i>,</i> , 1		1
Part I	_					Rework Scrap Use-as-is		t Therm	Skid-tube Machining moforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR I	No					Work Order Update]		Large Fab	Composite	j	Supplier	<u>ا</u> ا
Root					Descri	ption of work order update		Initial		ion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling													·
Operator											i		1
Material	Ш				f								
Setup	Ы											:	
Other	Н						ł						
Process	H												
Supplier Training	Н]	1									
Unapproved	H												
опарриотеа	<u></u>		1	L 	<u> </u>	F.	AUL	T CATE	GORY		1	<u> </u>	
Landi	ng G	ear				General							
!		Bending				Bend		Grain		-	Ovalized		Pressure/Forced
	Centre Not Concentric to O/S					BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
		Crushed/0	Crimped.			Burrs		Instruct	ions Incomplete/l	Jnclear	Part Lost/Mi	issing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		•
		Heat Trea	t			Countersink		Mislabe	led		Positioned V		· ·
		Inspection	n Strip in	Tube		Cut Too Short		Misread	i		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

* April-16-13 12:36:38 PM

Work Order ID: 99939

Parent Item:

646.4001

Parent Item Name: AS350 Cable Cutter

99939 *646 4001*

Location

Location

ST139A

Location

ST336

Location

ST139B

Start Date: 4/16/13

Start Qty: 1.00

Required Date: 4/30/13

Required Oty: 1.00

646.3610

646.3714

MS20470AD5-6

Purchased

*MS20470AD5 Rivet

646.3812

Manufactured

Manufactured

125083 125083 ST139A

93434

93175

105433.

124089

93185

2.0000

18.0000

Loc Code

Loc Code

2 2 Each

Loc Oty

Loc Qty

1756

866

890

Each

Loc Oty

11

11

Each

1,756.000

Loc Code

Each 9.0000

Loc Code



Manufactured

No

No

Loc Qty

										DQA:	Date:	
NCR:	res / No				WORK ORDER NON-	CON	VFORI	MANCE / UPDATE			5.	•
·	<u> </u>					- ,				QA Closed:	Date:	
March Ond					DISPOSITION			A	GAINST DEF	PARTMENT	/PROCESS	
Work Orde	er:				Rework	1 l		Skid-tube Cro	osstube		Water Jet	Engineering
Part N	NO.				Scrap	1		· —	nall Fab	Pro	d. Eng. Coor.	Quality
raiti					Use-as-is	1 1		~ <u>~</u>	inishing		re/Packaging	Other
NCR N	No				Work Order Update	1		~}—	nposite 🗌	•	Supplier	
			,	a .							r	
Root				1	ption of work order update	1	nitial	Action		Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Description	า	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling											1	
Operator	\Box											
Material												
Setup			ĺ						•			
Other				2								
Process			i .						:			
Supplier												
Training	Ш											
Unapproved		1		<u> </u>		<u> </u>	T 64TF	CORY				
						AUL	T CATE	GORY				
Landi	ng Gear			_	General		:			Ovalized		Pressure/Forced
	Bending				Bend	-	Grain		<u> </u>	Ovanzed Over/Under	taloransa	Temperature/Cure
	⊢ ⊣	Not Conce	ntric to	^{0/8}	BOM/Route	\vdash	Hardwa			ł	<u> </u>	Weld
	Cracks			_	Broken/Damaged	-	!	ion Incomplete		Part Incorre	 	Wrong Stock Pulled
	_	d/Crimped		<u> </u>	Burrs	\vdash	ł	ions Incomplete/Unclea	"	Part Lost/M Part Moved		Tantonia grock knilen
	Cuffs		•	<u> </u>	Contamination	\vdash	Mainte		<u> </u>	1		•
1	Heat Tr	eat		1	Countersink	1	Mislabe	neu	1	Positioned \	WIONE	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

* April-16-13 | 12.36:38 PM

Work Order ID: 99939

Parent Item:

AN3-3A

646.3813

MS20470AD5-7

646,4001

Parent Item Name: AS350 Cable Cutter

99939

No

646 4001

Start Date: 4/16/13

Start Qty: 1.00

268.0000

Required Date: 4/30/13

Required Qty: 1.00

(*AN3=3A*

Manufactured

Purchased

Location

ST139d

Location

Location

123831 124221

124552

ST350

200 61 Each

Loc Oty

268

Each

5.0000

Loc Code

Loc Code

Purchased No

Purchased

No

125083 5 Each

Loc Qty

Loc Qty

2,194,000 **

Mezz 1384 2655 799 3011 585 ST336 810 123425 810 Each 445.0000

Loc Code

**

NUT PLATE

Location Loc Oty ST316 445 123268 75 123301 50 123522 320

Loc Code

123522

April-16-13 12:36:38 PM

Shop Packet Print

Page 9

NCR: Y	es / No)				WORK ORDER NON-C	O	VFOR	MANCE / UP	DATE			•
								٠			QA Closed:	Date:	
Work Orde	r:					DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part N						Rework Scrap Use-as-is			Skid-tube Machining noforming	Crosstube Small Fab Finishing	4	Water Jet J. Eng. Coor. e/Packaging	Engineering Quality Other
NCR N	o		· · · · · · · · · · · · · · · · · · ·			Work Order Update]		Large Fab	Composite]	Supplier	
Root				Desc	rip	tion of work order update	1	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty		0	r Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
oc/Data													
quip/Tooling				ļ '								•	
perator							Ì						
1aterial													
etup													
ther			1								1		
rocess			1										
upplier													
raining													·
napproved						<u></u>							
-						F	AUL	T CATE	GORY				
Landin	g Gear			y		General					_	_	_
ſ	Bendin	g		ſ		Bend		Grain			Ovalized		Pressure/Forced
<u> </u>	Centre	Not Conce	ntric to	o/s		BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks			ſ		Broken/Damaged		Inspect	ion Incomplete		Part Incorre	et	Weld
Ī	Crushe	d/Crimped	l <u>.</u>	Ī		Burrs		Instruct	ions incomplete/	'Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
F	Cuffs					Contamination		Mainte	enance		Part Moved	• .	· ·
	Heat T	reat				Countersink		Mislabe	eled		Positioned V	Vrong	
		ion Strip ir	ı Tube		\neg	Cut Too Short		Misread	Ė		Power Loss/	Surge	Other
Ì	 1 '	in Bend		ľ		Drill Holes		Offset		<u>. </u>		<u>-</u>	
t		Waves in	Extrusio	n t		Drawing		Out of	Calibration				
.	— 1	g Sequence		ļ	-	Finish		Out of	Sequence				
<u> </u>		Twist in Tu		ŀ	┵	Folio		1	Dimensions				

DQA:

Date:

Wave/Twist in Tube

* April-16-13 | 12:36:38 PM

Work Order ID: 399939

Parent Item: 646.4001

Parent Item Name: AS350 Cable Cutter

CCR264SS3-02

AN3-5A

99939 *646 4001*

Start Date: 4/16/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

740.0000



Purchased No

Purchased

Location ST327 106578 123785 124231 124259

Loc Oty Loc Code 740 100 240 200 200 Each 1,103.000

Each

Loc Code



No

Location Loc Qty FP001 86 122800 86 GA 120 117423 120 ST350 22 120187 22 ST512 875 122416 75 124561 800

Each 12.0000

646,3715

Manufactured No

> Location Loc Oty ST139B 12

> > 12

Loc Code

93338

									DQA:	Date:		
NCR: Yes	/ No			WORK ORDER NON-C	ONF	ORN	MANCE / UP		QA Closed:	Date:		
Work Order:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS		
Part No.		l., a.	· <u> </u>	 Rework Scrap			Skid-tube // // // // // // // // // // // // //	Crosstube Small Fab	Pro	Water Jet d. Eng. Coor	Engineering Quality	
NCR No.				 Use-as-is Work Order Update			oforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other	_
Root				iption of work order update	1	tial		tion	Sign &	Varification	OC Inchests	~ -
Cause	Date	Step	Qty	or Non-conformance	Chie	f Eng	Desc	ription	Date	Verification	QC Inspecto	זכ
Doc/Data						I						
quip/Tooling												
Operator												
Material	·											
Setup					Ì							
Other										1] .	
Process					ļ	-						

FAULT CATEGORY Landing Gear General Pressure/Forced Grain Bend Ovalized Bending Temperature/Cure BOM/Route Over/Under tolerance Centre Not Concentric to O/S Hardware Weld Broken/Damaged Inspection Incomplete Part Incorrect Cracks Wrong Stock Pulled Instructions Incomplete/Unclear Part Lost/Missing Crushed/Crimped. Burrs Part Moved Maintenance Cuffs Contamination Positioned Wrong Countersink Mislabeled Heat Treat Power Loss/Surge Other Misread Inspection Strip in Tube Cut Too Short Drill Holes Offset Ripples in Bend Out of Calibration Drawing Torque Waves in Extrusion Finish Out of Sequence Turning Sequence Folio Outside Dimensions

Wave/Twist in Tube

Supplier Training Unapproved

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

*April-16-13 12:36:38 PM

Work Order ID: -99939

Parent Item:

MS27039-1-12

646.3716

646.4001

Parent Item Name: AS350 Cable Cutter

99939

No

646 4001

Location

Mezz

Start Date: 4/16/13

Start Qty: 1.00

169.0000

Required Date: 4/30/13

Required Qty: 1.00

Manufactured

100993

169 169 Each

Loc Qty

Each

4.0000

Loc Code

MS20426AD5-7

Purchased

Purchased

No

Location Loc Oty 125083 125083

813.0000

Loc Code

MS24694-S54 Purchased

Screw

No

ST334

Location

101340

Loc Qty Loc Code 813 813 Each 76.0000

Each

Loc Code

Location Loc Oty ST303 76 123900 124859 75

NCR:	Yes	1	No
IVCIV.	103	1	110

												•
										DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-	CON	NFORI	MANCE / UI	PDATE			. •
										QA Closed:	Date:	
Work Orde	r:				DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
					Rework	7		Skid-tube	Crosstube		Water Jet	Engineering
Part N	0.				Scrap		1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is		Thern	noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR N	0.				Work Order Update			Large Fab	Composite	· .	Supplier	
												
Root		-			ption of work order update	1	nitial	į.	ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Des	cription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling											٠.	
Operator	_											
Material								ļ				
Setup						1						
Other												
Process											,	
Supplier												
Training				,								
Unapproved	_	<u> </u>	<u> </u>			Διπ	T CATE	GORY		.l		
Landin	ng Gear				General						······································	
[Bending				Bend		Grain			Ovalized		Pressure/Forced
ŀ	Centre N	ot Conce	ntric to	o/s	BOM/Route	\vdash	Hardwa	ire	<u> </u>	Over/Under	tolerance	Temperature/Cure
t	Cracks				Broken/Damaged	\vdash		ion Incomplete	ļ	Part Incorre	<u> </u>	Weld
Ì	Crushed/	Crimped.			Burrs	-	'	ions Incomplete	e/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
İ	Cuffs				Contamination		Mainte	enance		Part Moved		- !
	Heat Trea	at			Countersink	П	Mislabe	eled		Positioned V	Vrong	
Ī	Inspectio		Tube		Cut Too Short		Misread	d		Power Loss/	Surge	Other
Ţ	Ripples in	n Bend			Drill Holes		Offset					
	Torque V	Vaves in E	Extrusio	n	Drawing		Out of	Calibration				
Ţ	Turning S	Sequence			Finish		Out of :	Sequence				
	Wave/Tw	vist in Tul	be		Folio		Outside	Dimensions				

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

* April-16-13 12:36:38 PM

Work Order ID: 99939 *99939* Parent Item: 646,4001 *646 4001* Parent Item Name: AS350 Cable Cutter **Start Date: 4/16/13** Required Date: 4/30/13 Start Qty: 1.00 Required Qty: 1.00 MS27039-1-21 Purchased No Each 343.0000 Location Loc Qty Loc Code ST306 43 115935 43 ST506 300 124326 300 MS27039-1-20 Purchased No Each 478.0000 Location Loc Qty Loc Code SMP st510 478 124326 478 MS27039-1-19 Purchased No Each 848.0000 Location · Loc Qty Loc Code ST306 102 .122814 .. 2 123522 100 ST506 746 124326 746 646.3717 Manufactured No Each 2.0000 Doubler Location Loc Qty Loc Code ST139B 2

2

125083

										DQA:	Date:	
NCR:	Yes / N	0			WORK ORDER NON-O	100	VFORI	MANCE / UPDAT				•
									HINT 128	QA Closed:	Date:	
Marile Oud					DISPOSITION			Į.	AGAINST DEP	PARTMENT	PROCESS	
Work Orde	er:		·	·	Rework	1 J		Skid-tube C	rosstube		Water Jet	Engineering
Part N	No.				Scrap	1		——	mall Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	1		~ 	Finishing	Rec/Stor	e/Packaging	Other
NCR I	No				Work Order Update]		Large Fab Co	omposite 🔃		Supplier	
				,			<u></u>					
Root				1	ption of work order update	1	nitial	Action		Sign &		
Cause	Dat	e Step	Qty	,	or Non-conformance	Ch	ief Eng	Descriptio	on	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling	Щ											
Operator												
Material	Ш											
Setup		-										
Other												
Process												
Supplier												
Training												
Unapproved	<u> </u>		1	<u> </u>			T 64TF	6004			<u> </u>	
						AUL	T CATE	GURY				
Landi	ng Gear				General		Grain			Ovalized		Pressure/Forced
	Bendir	_		o/s	Bend BOM/Bouts	\vdash	4		⊢	Ovalized Over/Under	toloranco	Temperature/Cure
	⊢	Not Conce	ntric to	^{0/5} -	BOM/Route	-	Hardwa				 	Weld
	Cracks			<u> </u>	Broken/Damaged	-	1	ion Incomplete		Part Incorred	<u> </u>	Wrong Stock Pulled
	⊢	ed/Crimped	-	-	Burrs	-	Mainte	tions Incomplete/Uncle	—	Part Lost/Mi Part Moved	issiiig	Twing stock rulled
	Cuffs			\vdash	Countarial	-	┥		⊢ −−1		Vrong	
	Heat T	reat			Countersink		Mislabe	elea	i i	Positioned V	vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Cut Too Short Drill Holes

Drawing

Finish

Folio

Other

Power Loss/Surge

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

* April-16-13 | 12:36:38 PM

Work Order ID: 99939

646.4001

99939

Parent Item Name: AS350 Cable Cutter

Parent Item:

Custom Washer

646.3719

MS27039-1-10

646 4001

Location

ST139A

ST522

646.3718

Manufactured

Each 45.0000 Required Date: 4/30/13 Required Qty: 1.00

Start Date: 4/16/13

Start Qty: 1.00

Loc Code

Manufactured

93365

125083

38 38 Each

24.0000

Purchased No

Location ST139B

ST506

125083

Loc Oty 24 24

Each

Loc Qty

7

Loc Code

321.0000

Screw

Location Loc Qty GA 100 120449 100 ST305 101 122815 124859 100 ST308 18

123522

124326

18 102 102 Loc Code

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-O	O	VFOR	MANCE / UPDATE				
		,									QA Closed:	Date:	
	******					DISPOSITION			AGAINS	T DE	PARTMENT/	PROCESS	
Work Ord	er:			 		Rework	1		Skid-tube Crosstube	\Box]	Water Jet	Engineering
Dort	N1 a					Scrap	ŀ		Machining Small Fal		Pro	d. Eng. Coor.	Quality
Part	INO.					Use-as-is	1		noforming Finishing	-	- '	e/Packaging	Other
NCR	Nο					Work Order Update		1110111	Large Fab Composite		1100,0101	Supplier	
11011							J		1	L			
Root		·			Descri	ption of work order update		Initial	Action		Sign &		
Cause	-	Date	Step	Qty		or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling												٠,	
Operator													
Material	_] .						1
Setup	<u></u>		ı										
Other			!	İ									
Process	_												
Supplier	<u> </u>												
Training	_											-	
Unapproved	İ	L	<u>l</u>	<u> </u>	<u> </u>		<u> </u>	T CATE	CORV		<u> </u>		1
Land	ing (Soor .				General	AUL	LICAIL	SORT				· · · · · · · · · · · · · · · · · · ·
Lanu	T S	Bending			<u> </u>	Bend	Г	Grain			Ovalized		Pressure/Forced
	-	Centre No	ot Concer	ntric to		BOM/Route	-	Hardwa	re	\vdash	Over/Under	tolerance	Temperature/Cure
	\vdash	Cracks	ot concer	ittiic to	⁰ / ₃ -	Broken/Damaged		4	on Incomplete	-	Part Incorred	 	Weld
	Crushed/Crimped.					Burrs		4 `	ions Incomplete/Unclear	\vdash	Part Lost/Mi	-	Wrong Stock Pulled
	-	Cuffs	c.mpcu.			Contamination	\vdash	Mainte	•	 	Part Moved		-
	\vdash	Heat Trea	at		-	Countersink		Mislabe			Positioned V	Vrong	•

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Other

Power Loss/Surge

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

April-16-13 12:36:38 PM

Work Order ID: 99939

646.4001

99939

Parent Item Name: AS350 Cable Cutter

Parent Item:

646 4001

Location

123525

115457

123352

123759

125051

ST351

ST512

Location

Location

ST

ST

Start Date: 4/16/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

AN3-11A

No

Each

672.0000

Loc Code

Purchased

Purchased

No

Each

9.0000

Magnabond 6398 Part A (One 4 oz can)

600.0990

600.0991

SW

Purchased No Loc Qty 9 Each

9.0000

Loc Code

Loc Code

**

Sealant (One 6 oz Semkit)

Magnabond 6398 Part-B-(One 4 oz can)

Purchased

No

125051

Each

9.0000 **

SW

Location ST

125051

Loc Qty

Loc Qty

9

Loc Code

											DQA:	Da	te:	•
NCR:	es / No				WORK ORDER NON-C	O	NFORN	/IANCE / UP	DATE		QA Closed:	Da	to:	•
					<u> </u>	-					QA Closed:	Ua	ie.	
Marle Orde					DISPOSITION				AGAINST D	EΙ	PARTMENT	PROCESS		,
Work Orde	er:				Rework	1		Skid-tube	Crosstube			Water Jet		Engineering
Part N	do.				Scrap	1		Machining	Small Fab		Pro	d. Eng. Coor.		Quality
, are i	···			·	Use-as-is	1		noforming	Finishing			e/Packaging		Other
NCR 1	No.				Work Order Update	1 1	8	Large Fab	Composite			Supplier		
	-													
Root				Descri	ption of work order update	1	nitial		tion		Sign &			
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	_	Date	Verificatio	n	QC Inspector
Doc/Data														
Equip/Tooling		}						,						
Operator														
Material							i			÷				
Setup														
Other														
Process				*										
Supplier						İ								
Training														
Unapproved			<u> </u>								<u> </u>			
						AUL	T CATE	GORY						
Landi	ng Gear				General		1		_		1		_	Ī.
	Bendin	g			Bend		Grain				Ovalized		<u> </u>	Pressure/Forced
	Centre	Not Conce	ntric to	o/s	BOM/Route		Hardwa	re	1		Over/Under			Temperature/Cure
	Cracks				Broken/Damaged			on Incomplete			Part Incorre			Weld
	Crushe	d/Crimped		<u> </u>	Burrs		Instruct	ions Incomplete/	Unclear		Part Lost/Mi	issing		Wrong Stock Pulled
	Cuffs				Contamination		Mainte	nance			Part Moved			
	Heat Tr	eat			Countersink		Mislabe	led			Positioned V	Vrong	_	1
	Inspect	ion Strip ir	Tube		Cut Too Short		Misread	i			Power Loss/	Surge		Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Mpril-16-13 12:36:38 PM

Work Order ID: 99939 *99939* Parent Item: 646.4001 *646 4001* Parent Item Name: AS350 Cable Cutter **Start Date: 4/16/13** Required Date: 4/30/13 Start Qty: 1.00 Required Qty: 1.00 600.0129 Purchased No 128.0000 ** VHB Tape (75935A651 mcmaster) **Location** Loc Qty Loc Code ST 128 125031 128 600.1013 Purchased No Each 945.0000 **Location** Loc Oty Loc Code ST139A 945 125154 945 646.3910 Manufactured 72.0000 Each Location Loc Qty Loc Code ST139B 22 125083 22 ST139d 50 93238 50 646.3911 Manufactured No Each 20.0000 ** Shim Location Loc Code Loc Oty ST139A 125083 ST139d 19 93362 19

												DQA:	Dat	te:	•
NCR:	Yes	/ No				WORK ORDER NON-O	O	NFORM	MANCE / UPC	DATE					•
<u> </u>												QA Closed:	Dat	te:	·
Work Ord	or:					DISPOSITION				AGAINST [DEI	PARTMENT	PROCESS		
WORK Ord	er.			· · · · · · · · · · · · · · · · · · ·		Rework			Skid-tube	Crosstube			Water Jet		Engineering
Part	No.				·	Scrap	-		Machining	Small Fab			d. Eng. Coor.		Quality
NGD						Use-as-is	-		noforming	Finishing		Rec/Stor	e/Packaging		Other
NCR	NO.					Work Order Update	_		Large Fab	Composite			Supplier		
Root					Descri	ption of work order update		nitial	Acti	ion		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Cr	ief Eng	Descr	iption		Date	Verificatio	n	QC Inspector
Doc/Data	L				ļ										
Equip/Tooling													,		
Operator	rator						1								
Material															.4
Setup															
Other	_														
Process	<u></u>														
Supplier	<u> </u>														
Training															
Unapproved		L			l		<u></u>		<u> </u>						
					· · · · · · · · · · · · · · · · · · ·		AUI	T CATE	GORY						
Land	ing (1				General		1		г		1			1
Bending Centre Not Concentric to O/S						Bend		Grain		ļ		Ovalized		-	Pressure/Forced
	<u> </u>	-	ot Concer	ntric to	o/s _	BOM/Route	-	Hardwa		}		Over/Under		<u> </u>	Temperature/Cure
	<u> </u>	Cracks				Broken/Damaged	_	1	ion Incomplete			Part Incorre		L	Weld
	L	Crushed/	Crimped.		<u> </u>	Burrs	<u></u>	4	ions Incomplete/L	Jnclear		Part Lost/Mi	ssing	L	Wrong Stock Pulled
	L	Cuffs			<u> </u>	Contamination	\vdash	Mainte				Part Moved			
	<u> </u>	Heat Trea			_	Countersink		Mislabe		·		Positioned V	_	_	7
1		Inspection	n Strip in	Tube	1	Cut Too Short		Misread	1			Power Loss/	Surge	<u> </u>	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

April-16-13 12:36:38 PM

Work Order ID: 199939

646.4001

99939

Parent Item Name: AS350 Cable Cutter

Parent Item:

646.3912

646 4001

Start Date: 4/16/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

Location

646.3913

AN3-12A

Bolt

Manufactured

Manufactured

Purchased

No

No

ST139A 125083 ST139d 93423

125083

93160

Location

ST139B

ST139d

Loc Qty Loc Code 22 22 51 51 Each

Loc Qty

16

16

20

20

48

48

Each

Each

36.0000

Loc Code

59.0000

73.0000

120083

M125083

**

Location Loc Oty Loc Code GA 122407 ST351 5 114536 123352

ST512

123759

												DQA:	Da	te:	•
NCR:	Yes	/ No				WORK ORDER NON-O	COI	NFORM	MANCE / UP	DATE					•
												QA Closed:	Da	te:	
Work Ord	۰.,					DISPOSITION	i			AGAINST [DE	PARTMENT	/PROCESS		
WOIK OIU	er.					Rework	1		Skid-tube	Crosstube			Water Jet		Engineering
Part I	۷'n					Scrap	1		Machining	Small Fab		Pro	d. Eng. Coor.		Quality
	,				<u> </u>	Use-as-is	1		noforming	Finishing			re/Packaging	П	Other
NCR I	No.					Work Order Update	1		Large Fab	Composite			Supplier		
Root					1	ption of work order update	1	Initial		tion		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Desc	ription		Date	Verificatio	n	QC Inspector
Doc/Data												!			
Equip/Tooling							į								
Operator	<u> </u>														
Material	 														
Setup '	<u> </u>														
Other															
Process															
Supplier	<u> </u>														
Training	-					•									
Unapproved	L		L		l		<u> </u>	T CATE	SORV			<u> </u>	L		<u></u>
Landi	na (****	General	701	CATE	JORT						
Landing Gear Bending						Bend		Grain		ſ		Ovalized			Pressure/Forced
Centre Not Concentric to O/S					o/s	BOM/Route	\vdash	Hardwa	re	ľ		Over/Under	tolerance		Temperature/Cure
	Cracks					Broken/Damaged		4	on Incomplete			Part Incorre			Weld
	Crushed/Crimped.					Burrs		-1	ions incomplete/	'Unclear		Part Lost/M	issing		Wrong Stock Pulled
		Cuffs	•			Contamination		Mainte	•			Part Moved			•
	⊢-	Heat Trea	ıt			Countersink		Mislabe	led			Positioned V	Vrong		
		Inspection		Tube		Cut Too Short		Misread	1			Power Loss/	'Surge		Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

April-16-13 12:36:38 PM

Work Order ID: 99939

Parent Item:

646,4001

Parent Item Name: AS350 Cable Cutter

99939

646 4001

Start Date: 4/16/13

Start Qty: 1.00

Required Date: 4/30/13

Required Qty: 1.00

MS27039-1-16

Purchased

No

Each

70.0000

Loc Code

Location ST306

122993

Loc Oty 70

70

April-16-13 12:36:38 PM

Shop Packet Print

Page 17

			DQA:	Date:	*
NCR: Yes / No	Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE			9
	•		QA Closed:	Date:	•

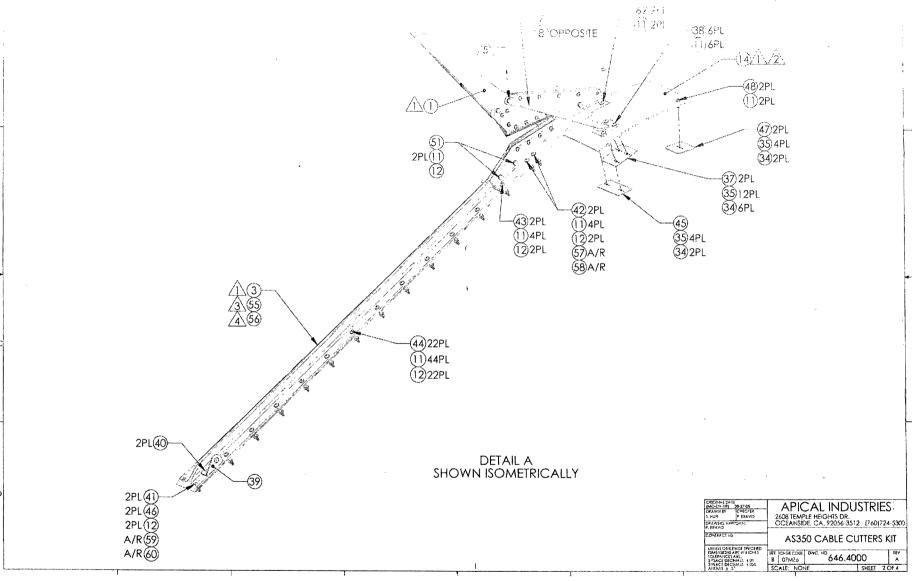
											QA Closeu.	Date	•
Work Order:				DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part No.						Rework Scrap Use-as-is		Machining Small Fat		Crosstube Small Fab Finishing	Water Jet Prod. Eng. Coor. Rec/Store/Packaging		Engineering Quality Other
NCR No.						Work Order Update	⁻		Large Fab	Composite	Nec/3tol	Supplier	
Root Descrip			ption of work order update	In	nitial	Ac	ction	Sign &	_·				
Cause		Date	Step	Qty or Non-conformance		Chie	ef Eng	Eng Description		Date	Verification	QC Inspector	
Doc/Data													
Equip/Tooling												,	
Operator							İ						
Material													
Setup			1				1						
Other													
Process													
Supplier													
Training													
Unapproved				<u> </u>									
							AULT	CATE	GORY				
Landing Gear General										-			
	_	Bending			<u></u>	Bend	\mathbf{H}	Grain		<u> </u>	Ovalized	-	Pressure/Forced
	L	Centre Not Concentric to O/S				BOM/Route		Hardware			—d '		Temperature/Cure
	_	Cracks				Broken/Damaged		Inspection Incomplete			Part Incorrect		Weld
	Crushed/Crimped.					Burrs		Instructions Incomplete/Unclear		/Unclear			Wrong Stock Pulled
	Cuffs				Contamination	\vdash	Maintenance			Part Moved			
	Heat Treat					Countersink		Mislabeled		ļ	Positioned Wrong		–
	_	Inspectio	•	Tube	<u> </u>	Cut Too Short	-	Misread Power Loss/Surge		Surge	Other		
		Ripples ir			L	Drill Holes	—	Offset					
		Torque W			n _	Drawing			Calibration				
		Turning S			<u> </u>	Finish	\vdash		Sequence				
Ī	Wave/Twist in Tube				i	Folio	Outside Dimensions						

,	ENGINEERING	CHANGE NOTIC	E NO	03079			SH	EET 1	JF 1
APICAL	DWG NO. 646.	4000 REV	/: A	PREPARED BY	N.CAP	DATE:	03/21/11		FECT ON DWG INC. 🛛 UNINC
INDUSTRIES, INC.	DWG TITLE: A	S350 CABLE						<u> </u>	1110. 121 0111110
	APPROVED BY	12 mo	MFG Davi	J. Barbon	QC //	Courseff	EF	T NEX	T ORDER
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: CREA	TED FIXED AN							
	REF REF / REF 65 64 66 62 2 2 63 66 64 66 62 1 2 61 66 64 66 62 1 2 61 66 64 66 64 64 64 64 64 64 64 64 64 64	1.2911 SCREV 1.2637 SCREV 1.2637 SCREV 1.2763 SULT 16.3912 SULN 16.3912 SULN 16.3910 SULN 16.391	MOS-FETALS* MOS-FETALS* MOS-FETALS* MOS-FETALS* MOS-FETALS* MOS-FETALS* MATL SPEC		2 2 2 2 2 2 2 2 2 2	51 6012826 50 646.3814 49 6012910 48 601385 47 646.3718 45 646.3717 2 44 6011982 41 6012829 42 6011952 42 6011952 43 6012952 44 6012829 40 6012831 37 646.3715 38 6012833 37 646.3715 38 6012833 37 646.3715 38 6012833 37 646.3715 38 6012833 38 6012835 39 646.3715 22 646.3813 31 6012822 23 646.3812 23 646.3812 23 646.3812 23 646.3812 23 646.3812 24 646.382 25 6012823 26 6012823 27 646.3813 28 646.3712 28 646.3712 29 6012823 20 6012823 21 646.3712 22 646.3712 23 646.3712 24 646.3813 25 646.3813 26 6612833 27 646.3813 28 646.3712 29 6012823 20 6012823 20 6012823 21 6012823 22 646.3711 23 646.3712 24 646.3710 25 666.3813 26 666.3813 27 646.3813 28 646.3713 29 646.3713 21 6012823 22 646.3711 22 6012823 23 646.3712 24 646.3813 25 646.3813 26 646.3813 27 646.3813 28 646.3813 29 646.3813 20 646.3813 21 646.3813 22 646.3813 23 646.3813 24 646.3813 25 646.3813 26 646.3813 27 646.3813 28 646.3813 29 646.3813 20 646.3831 21 646.3813 22 646.3831 23 646.3831 24 646.3831 25 646.3831 26 646.3831 27 646.3831 28 646.3831 29 646.3831 20 646.3831 20 646.3831 21 646.3831 22 646.3831 23 646.3831 24 646.3831 25 646.3831 26 646.3831 27 646.3831 28 646.3831 29 646.3831 20 646.3831 21 646.3831 22 646.3831 23 646.3831 24 646.3831 25 646.3831 26 646.3831 27 646.3831 28 646.3831	MODERING STRP PART B MODERING STRP PART A BOLT VIPER BRACKET SCREV SCREV SCREV SCREV SCREV SCREV SCREV SCREV SCREV SCREV SCREV SCREV SCREV SCREV SCREV STRUT DOUBLER BOLT RIVET RUTPLATE RIVET SCREV STRUT BRACKET SCREV STRUT BRACKET SCREV STRUT BRACKET BOLT RUTPLATE RIVET RUTPLATE RIVET SCREV STRUT BRACKET ROUT SCREV STRUT BRACKET BOLT SCREV SCREV STRUT BRACKET RUTPLATE SCREV SCREV SCREV SCREV STRUT SCREV SCREV SCREV SCREV STRUT SCREV S	T MITE	94 C
DOCUMENTS EFFECTED:	MDL.	☑ INSTALL INSTR	UC 🗵 IC	A 🛛 B	CHANGE I MAJOR	CATEGORY MINOR	DER REVI	EW REQI	

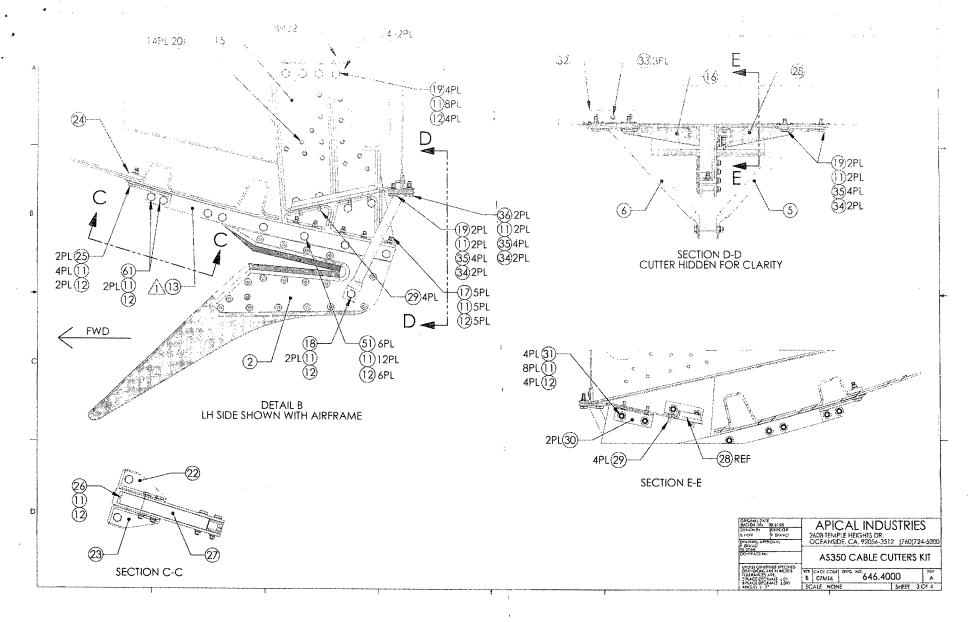
ENGINEERING CHANGE NUTICE NO 03046 J. JACKSON | DATE: 01/24/11 EFFECT ON DWG DWG NO. 646.4000 | REV: A ☐ INC. Ø UNINC DWG TITLE: AS350 CABLE CUTTERS KIT INDUSTRIES, INC. APPROVED BY: ENGR Brance NEXT ORDER TRANSACTION CODES (TC): A-ADD C-CREATE REASON: ADDÉD GPS MOUNT KIT, FIN 65. REVISED DRAWING VIEWS ADDED NOTE /7 R-REVISE D-DELETE SHEET 1, ZONE B1 IS: AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ONTO F/N 1. SHEET 2, ZONE B2 IS: SHEET 2, ZONE A4 IS: (8)OPPOSITE DETAIL D REF (1) DETAIL D
TYPICAL GPS MOUNT KIT INSTALLATION 647.5701 REF GPS MOUNT KIT 65 A .4001 DESCRIPTION TO A PAGE SUPPLIED FIN TO PART NUMBER MATERIAL **SPECIFICATION** CHANGE CATEGORY DER REVIEW REQUIRED DOCUMENTS EFFECTED: □ MDL □ INSTALL INSTRUC □ ICA ☒ B□M □ MAJOR ☒ MINOR ☐ YES

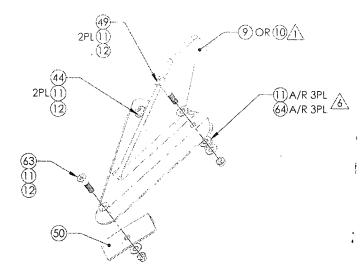
NORS 41: AFTER INSTALLATION, APPLY F/N 54 A/R TO FILE GAPS AND FILLET EDGES io Xutiva . i vito intit /2. INSTALL F/N 14 WITH F/N 52 8 53 57 501.3790 51 601.2826 50 646.3814 49 601.2910 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE VENDOR: MCMASTER-CARR P/N 7.5935A651 BOLI | WIFER BRACKET | SCREW 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE VENDOR: R.S. HUGHES P/N 021200-24216 127 48 601.1365 145255-1-5 1 SC186W 2 47 646.3719 DOUBLER 2 % 1 45 646.371; 2 22 44 601.1948 2 43 601.1952 401.1956 ZS REUSE FASTENERS FROM F/N 1 34527939-1-19 USE WASHERS AS REQUIRED AS SHIMS TO OBTAIN BEST FITMENT SCREW 2527009 1700 2 41 601.2829 2 40 601.2831 SCREW SCREW 5AC22039-1-01 14\$24694554 MS30428AD5 7 RIVET 39 646.3716 GAUGE BRACKET 38 601.1953 37 646.3715 STRUT DOUBLER 2 36 601.2824 36 35 601.2277 18 34 600.0795 3 33 601.2565 1 32 644.3813 AN3-54 RIVET CC#26153-340 NUTPLATE NS21047-3 83520470AD5-7 -DETAIL A 4 31 601.2822 2 30 646.3812 8 29 601.2564 1 28 646.3714 1 27 646.3610 ANS-3A GUSSET BRACKET MS20470A05-6 GUSSE 1 26 601,2830 2 25 601,2825 1 24 646,3811 1 23 646,3712 SCREW M\$74694\$55 DETAIL C AN3-6A RADIUS BLOCK 22 646.3711 21 601.2832 AC49420405-5.5 14 20 601,2020 10 19 501,2823 CR3213-5-3 RIVE BOLT ANS:4A 18 601.2827 17 601.2912 BOLT SCREW ANS-1SA 646.4002-MS24694551 5 17 501;2712 1 16 646,3713 1 15 646,3710 1 14 646,3710 1 13 646,3110 6 63 12 601,1624 GUSSET SUPPORT DOUBLER CHANNEL 646.4001 LOCKNU 16 134 11 601,1607 10 646.3411 9 646.3410 RH WIPER DEFLECTOR DETAIL B LH WIPER DEFLECTOR STRUI 1 8 546.3513 7 646,3512 646.351 6 646.351 5 646.351 64 601.3151 WASHER N2-5 : F4910363F 63 601.2911 62 601.2637 SCREW MS24694553 4 646.3810 M\$27039-1-16 3 646,2910 DEFLECTOR 61 601.2763 BOLT AN3 12A 2 646,3001 LOWER CUTTER ASSY 60 646.3913 SHIM 646,3301 UPPER CUITER ASSY 4 59 646,3912 1 58 646,3911 50 FIND# PARI# SHIM 646.4002 AS350 WIPER DEFLECTOR KIT SHIM ASSEST CABLE CUITERS KIT FFARA SPEC. DESCRIPTION SPEC. QTY PARTS LIST NEXT ASSY (S) APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. GCEANSIDE, CA. 92056-3512 (760)724-5300 02 27 65 COMPACT No. AS350 CABLE CUTTERS KIT 646.4000 6 Q7M26

A STATE OF THE RESERVE OF THE STATE OF THE S



D





DETAIL C LH SHOWN EXPLODED RH OPPOSITE

ORIDERAL DA IND-DA-VEJ DEAWN H	16 88-07-38 CHECKEP III. 898-70	APICAL INDUSTRIES					
CHAMPIC AF	PRCIVA;	OCEANSIDE, CA. 92056-3512 (760)724-5300					
COLFRACT N	¢.	AS350 CABLE CUTTERS KIT					
TOURPANCE TOURPANCE THACE UP	CANALS 2.01	SOL CAGECOCH D	²⁰⁰ 646.400	0	REV A		
ANCHES :	Servis rock	SCALE NONE	i	SHEET 4 OF	A		

_

SHEET 1 __JF 1 ENGINEERING CHANGE NOTICE NO: 03079 EFFECT ON DWG APICAL DATE: 03/21/11 REV: A PREPARED N.CAP DWG NO. 646.4000 ☐ INC. 図 UNINC. DWG TITLE: AS350 CABLE CUTTERS KIT INDUSTRIES, INC. NEXT ORDER APPROVED BY TRANSACTION CODES (TC) REASON: CREATED FIXED AND CCK WITHOUT FIXED PROVISIONS KIT A-ADD C-CREATE R-REVISE D-DELETE 600.0991 600.0990 601.2826 MACEONE 6398 PART II MAGRESONNE 6398 PART A 52 5000790 51 6012826 50 646.3814 49 6012910 48 601365 47 646.3719 46 646.3718 AIG-DA BOLT _MS27739-1-18 KIZ7039-1-10 DOUBLER CUSTOM VASHER I 45 646.3718 45 646.3717 44 6011948 43 6011952 42 6011952 41 6012831 39 646.3716 30 6011953 37 646.3715 36 6012824 35 6012824 35 6012824 36 6012824 37 34 6001953 SHEET 1, BOM, IS: SCREV M\$27437-1-19 HS27835-1-25 MS27439-1-20 KSE4694554 1 HS28426A05-7 MS27439-1-12 BOLT RIVET NUTPLATE RIVET _AX3-5A----CXXX432-3-62 MS23947~3 NS2847GAD5-7 A4C2-3A #529470AUS-6 1KS24694535 I NO GA 08323-5-3 1 MG-44 1 ACI-134 L_#52469453i 646.3710 646.3110 CHANNEL) GPS MOUNT KIY VASHER K52042.3 SECRETARY. FE4694553_ SOREV RH VIPER DEFLECTOR AS27d349-1-15 LIN SIPER DEFLECTOR ASS-COM. 646.351 SHIM X PRIMER "1 VHB TAPE I ERACKET L
DEFLECTOR
LIEVER CUTTER ASSYUPPER CUTTER ASSY 5 (1 5 56 600.013 B FT) 0 FT 55 600.012 1 11 11 54 600.102 483 252 4001 FIND 1 PART 1 PR-1425 QUEST MATE SPEC 646,4004 646,4003 646,4003 646,4001 802 Ass FIND 8 PART 8 FIXES PROVISIONS ICT ASSS VISION SPECIAL PROPERTY.

MDL INSTALL INSTRUC II ICA I BOM O MAJOR I MINOR

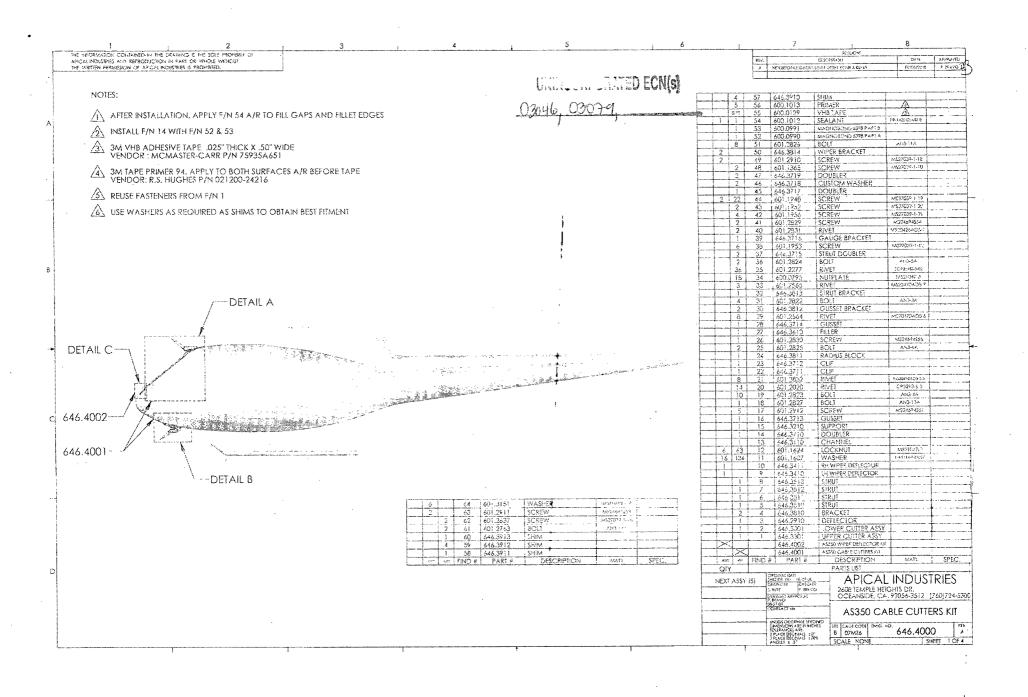
DOCUMENTS EFFECTED:

ACCES CABLE CUTTERS KIT DESCRIPTUN

YES

CHANGE CATEGORY

DER REVIEW REQUIRED



April-16-13 12:36:33 PM

Item ID: 646.4001 Accept *N900040100* Setup Revision ID: Item Name: AS350 Cable Cutter Stop **Start Date:** 4/16/13 Start Qty: 1.00 Cust Item ID: Required Date: 4/30/13 Req'd Qty: 1.00 Customer: Reference: Run Start Approvals: Process Plan: Tooling: Date: QC: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Reject Accept Work Center ID Description **Run Hours** Code Qty Qty. Number Stamp Draw Nbr **Revision Nbr** 646.4000 Α 3-65 MLJ 0.00 等可有的 *100* DOCUMENT CONTROL 30月海0名 DC Memo 0.00 \$101.41 Document Control Photocopy bluefile & type labels per PPP 646.4001 110 Pick Kit 0.00 **Packaging** 0.00 Memo Packaging 120 QC4-100% Inspect kits for completeness 0.00 *120* 0.00 Memo **Quality Control**